REMARKS/ARGUMENTS

With the foregoing amendments, claims 1-8 are presented for favorable consideration. Claim 1 has been amended to further distinguish the invention from the cited art by noting that the claimed process does not involve the use of clays and organic binders that are required by the cited art. Support for this amendment can be found in the specification, for example, on page 8, lines 17-31, page 9, line 31 through page 11, line 6, the examples, and Figures 1-4. Dependent claim 8 has been added as supported by the specification, for example, on page 8, lines 17-31, page 9, line 31 through page 11, line 6, the examples, and Figures 1-4. No new matter has been added by the claim amendments.

Claims 1-7 stand rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Choudary et al (U.S. Patent No. 6,087,289). Applicants respectfully request the withdrawal of the rejection for at least the following reason.

The applicants have discovered a novel and unobvious process for preparing a molecular sieve adsorbent for the selective adsorption of oxygen from air that comprises exchanging zeolite X with a water-soluble salt of a rare earth metal selected from the group consisting of cerium, europium, gadolinium and mixtures thereof and wherein the process does not involve the use of clays and organic binders. The applicants have discovered that the invention provides improved adsorption selectivity for the molecular sieve adsorbent prepared from the inventive process, that the oxygen/argon selectivity is as high as 8 for the adsorbent, and that the adsorbent has an oxygen selectivity over argon throughout an extremely broad pressure range and where the oxygen/nitrogen selectivity is up to a pressure of 500 mmHg. Thus, the present invention yields an unexpectedly superior adsorbent in terms of adsorption selectivity over a broad

pressure range. The cited art does not disclose, teach or appreciate the specific features of the claimed invention or its unexpectedly superior results.

As noted above, the claimed invention does not involve the use of clays and organic binders. The cited reference requires the use of both clays and an organic binder. See, for example, column 4, lines 14-15, column 4, lines 37-52, and claim 1 of the '289 patent. More specifically, the '289 patent teaches and requires a process for preparing a molecular sieve adsorbent by mixing zeolite powder, clay and an organic binder, and shaping the adsorbent and subjecting it to calcination before or after the cationic exchange process. (See also the Office Action's statement that the '289 process comprises "preparing a mixture of a zeolite powder and binder.") In contrast, the claimed invention involves the preparation of a molecular sieve adsorbent that does not involve the use of clays and organic binders and that exchanges zeolite X with a water-soluble salt of a rare earth metal selected from the group consisting of cerium, europium, gadolinium and any mixture thereof. The applicants have discovered that this unique process results in an improved adsorption selectivity, and oxygen/argon selectivity that is as high as 8 for the adsorbent, and that the adsorbent has oxygen selectivity over argon throughout a broad pressure range, and where the oxygen/nitrogen selectivity is up to a pressure of 500 mmHg. The cited prior art neither discloses nor suggests the claimed process -- nor does it have the objectives or goals of the claimed process of obtaining a highly selective adsorbent over a broad pressure range.

Further, the molecular sieve adsorbent claimed in the '289 patent is prepared by cationic exchange with lithium and calcium salt solutions along with cerium cations into X and Y type zeolites. In contrast, the molecular sieve adsorbent prepared by the subject invention involves the exchange of the extra framework sodium cations of the zeolite X with various rare earth

metal cations, namely, cerium, europium and gadolinium, and wherein the adsorbent does not contain any lithium, potassium or calcium ions. See, for example, claim 8.

For the foregoing reasons, applicants submit that claims 1-8 are not anticipated or rendered obvious by the '289 patent. As a result, applicants respectfully request the withdrawal of the anticipatory rejection.

In view of the foregoing amendments and remarks, applicants submit that this application is in condition for allowance. A notice to that effect is earnestly solicited.

If the examiner has any questions concerning this case, the undersigned may be contacted at 703-816-4009.

Respectfully submitted,

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